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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MOYER, DALE S

ART UNIT

PAPER NUMBER

3664

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,904	IGARASHI ET AL.	
	Examiner	Art Unit	
	Dale Moyer	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. The applicants' submissions filed on 19 April 2010 (referred to herein as the "April amendment") and 18 May 2010 (referred to herein as the "May amendment") and 18 August 2010 (referred to herein as the "August amendment") have been entered.

2. Claims 1-29 have been presented in the application, of which, claims 3-26 are cancelled, claims 1-2 and 27-28 were previously presented, and claim 29 is new. Accordingly, pending claims 1-2 and 27-29 are addressed herein.

Response to Arguments

3. The applicants' arguments have been fully considered but are moot in view of the new grounds of rejection. However, response to the applicants' arguments relevant to the new grounds of rejection has been provided below.

4. On page 9 of the August amendment, the applicants argue that "Hagenbuch nowhere discloses or otherwise suggest detection and recording of an overtime event that is determined only when the time of a generated warning exceeds a predetermined time (emphasis removed)."

In response, it is noted that the features upon which applicant relies (i.e., a limitation requiring "detection and recording of an overtime event..." only when "...the time of a generated warning exceeds a predetermined time [emphasis removed]") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "an information detection device detecting information on a running state of the vehicle," does not reasonably provide enablement for the limitation that recites "wherein the information-processing device detects a fuel flow rate as information on the running state of the vehicle." The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

7. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "an information detection device for detecting a vehicle speed" is not enabling for "an information processing device for detecting a vehicle speed." The specification does not enable a person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use

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8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-2 and 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-2 and 27, the claims recite a limitation that includes an element named "the overtime event" on lines 14-15. There is insufficient antecedent basis for this element in the claims. For the purpose of examination, "the overtime event" has been interpreted to mean "the warning."

Regarding claims 1-2 and 27-29, Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "when" in claims 1-2 and 27-29 is used by the claim to mean "only when," see the August amendment, page 9, while the accepted meaning is "when." The term is indefinite because the specification does not clearly redefine the term.

Regarding claim 2, the claim recites "an information detection section detecting information on a running state of the vehicle" and then later recites "wherein the information processing device detects an accelerator angle as information on the running state of the vehicle..." It is unclear how the same information could be

generated by both the information detection section and by the information processing device. Further, it is noted that a broad limitation followed by a narrow limitation is indefinite.

Regarding claims 27-28, the limitation requiring "wherein the information storage device stores the occurrence of the overtime event by one or more of incrementing a stored cumulative overtime event count or adding the time during which the processed information is maintained to satisfy the required warning conditions or the elapsed time of the processed information to a stored cumulative overtime event time," renders the claim indefinite.

That is, the claim is indefinite because it is unclear i) whether the information storage device stores the occurrence of the over time event by one or more of: "incrementing a stored cumulative overtime event count" or "adding the time during which the processed information is maintained to satisfy the required warning conditions" or "the elapsed time of the processed information to a stored cumulative overtime event time" or ii) whether the information storage devices stores the occurrence of the overtime event by one or more of: "incrementing a stored cumulative overtime event count" or "adding the time during which the processed information is maintained to satisfy the required warning conditions or the elapsed time of the processed information to a stored cumulative overtime event time" or iii) whether the information storage device stores the occurrence of the overtime event by one or more of: "incrementing a stored cumulative overtime event count" or "adding the time during which the processed information is maintained to satisfy the required warning

conditions" or "[adding] the elapsed time of the processed information to a stored cumulative overtime event time" or some variant thereof.

Regarding claim 29, the claim limitation recites an "information detection means for detecting information on a running state of the vehicle" renders the claim indefinite because the limitation includes the phrase "means for" or "step for", but it is modified by some structure, material, or acts recited in the claim. It is therefore unclear whether the recited structure, material, or acts are sufficient for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph. That is, it is unclear whether the "information detecting means" is sufficient for performing the function of "detecting information on a running state of the vehicle" or whether additional structure, material, or acts are required.

Additionally, the claim limitation recites an "information-processing means for processing the information detected by the detecting means [and for] generating a warning when the processed information satisfied required warning conditions" renders the claim indefinite because the limitation includes the phrase "means for" or "step for", but it is modified by some structure, material, or acts recited in the claim. It is therefore unclear whether the recited structure, material, or acts are sufficient for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph. That is, it is unclear whether the "information-processing means" is sufficient for performing the functions of "processing the information detected by the detecting means" and "generating a warning when the processed information satisfied required warning conditions," or whether additional structure, material, or acts are required.

Further, the claim recites a limitation that includes an element named "the overtime event" on line 18. There is insufficient antecedent basis for this element in the claims. For the purpose of examination, "the overtime event" has been interpreted to mean "the warning."

Finally, the claim limitation reciting an "information storage means for storing the processed information" renders the claim indefinite because the limitation includes the phrase "means for" or "step for", but it is modified by some structure, material, or acts recited in the claim. It is therefore unclear whether the recited structure, material, or acts are sufficient for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph. That is, it is unclear whether the "information storage means" is sufficient for performing the function of "storing the processed information," or whether additional structure, material, or acts are required.

If the applicants wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, the applicants are required to amend the claim so that the phrase "means for" or "step for" is clearly not modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means (or step) plus function limitation (e.g., deleting the phrase "means for" or "step for").

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Murakami et al. (United States Patent No. 6,052,644).

Regarding claim 29, Murakami teaches a fuel-saving management system comprising, on a motor vehicle:

information detection means (Fig. 1, element 2 and/or 3) for detecting information on a running state of the vehicle (column 14, lines 24-28, column 18, lines 28-33);

information-processing means (Fig. 1, element 10) for processing information detected by the information detecting means, the information-processing means also generating a warning ("warning signal") when the processed information satisfies required warning conditions ("not within a predetermined range of values"; column 6, lines 1-5, column 10, lines 24-31); and

an information storage means (Fig. 2, elements 22, 27, 28, 32, and/or 33) for storing the processed information (column 16, line 62-67, column 17, lines 1-33, column 18, lines 37-39);

wherein when a time (measured duration) during which the processed information is maintained ("uncontrollable state") to satisfy the required warning conditions ("over speed limit and accelerator" and "stoppage signal outputted") exceeds

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a previously set time ("predetermined time"), the information-processing means stores [information] into the information storage means (outputs brake actuating command data to register 32; see column 23, lines 30-67).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-2 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al. (United States Patent No. 6,052,644).

Regarding claims 1 and 27, Murakami et al. teach a motor vehicle having a fuel-saving system, the fuel saving system, comprising:

an information detection device (Fig. 1, element 2 and/or 3) detecting information on a running state ("stroke amount" and/or "rotation angle" and/or "vehicle speed") of the vehicle (column 14, lines 24-28, column 18, lines 28-33);

an information-processing device (Fig. 1, element 10) processing the information detected by the information detection device, the information-processing device also generating a warning ("warning signal") when the processed information satisfies required information warning conditions ("not within a predetermined range of values"; column 6, lines 1-5, column 10, lines 24-31); [...]

an information storage device (Fig. 2, elements 22, 27, 28, 32, and/or 33) storing the processed information (column 16, line 62-67, column 17, lines 1-33, column 18, lines 37-39);

wherein when a time ("predetermined time interval") during which the processed information is maintained {present speed is held in memory for the duration of the interrupt interval. Thereafter, the present vehicle speed is updated according to interrupt signal 23a} to satisfy the required warning condition {alternative(s), not required by claim language}, the information-processing device stores the occurrence of the [warning] into the information storage device {Since the warning signal 'is read from register 33 into the warning device 77,' it is implicit that the warning signal was first stored within the register. See column 17, lines 24-25};

wherein the calculated vehicle speed (applicants' processed information) is maintained in memory to satisfy the required warning conditions for the duration of the interrupt interval (column 16, lines 44-53).

wherein the processed information includes processed general road information and processed highway/expressway information;

wherein the processed general-road information includes either a vehicle speed, an engine speed (column 15, line 44, column 16, line 41, column 18, line 62), an accelerator angle (Fig. 1, element θ_{op} and/or "S θ ", column 18, lines 26-39) {alternative(s) not required by the claim language};

wherein the information-processing device detects a fuel flow rate ("a fuel injection amount, equivalent to the stroke amount is calculated by the information

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processing means" column 15, lines 44-46) as information on the running state of the vehicle.

Murakami et al. does not *explicitly* teach that the processed information includes processed general road information and processed highway/expressway information.

It is noted that the applicants' claimed "processed highway/expressway information" is non-functional descriptive material. At best, the recited "processed highway/expressway information" is merely a compilation of data or an arrangement of data. See 2173.05(h). It would have been *prima facie* obvious to a person having ordinary skill in the art at the time the invention was made to combine any non-functional descriptive material, including the applicants' "processed highway/expressway information" with the prior art apparatus taught by Murakami et al. because such a combination would not produce unexpected results, and because the prior art apparatus would perform equally well with or without the applicants' claimed "processed highway/expressway information" because such inclusion of such "processed highway/expressway information" does not distinguish over the prior art in terms of structure and/or function.

The applicants are reminded that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. The specific characterization of "processed information" as "processed general road information" or "processed highway/expressway information" does not further define the apparatus in terms of its structure. See MPEP 2114.

Murakami et al. does not teach that "the information-processing device generates the warning on the engine speed when the fuel flow rate exceeds a previously set value."

However, the applicants' have not disclosed that "generating the warning on the engine speed when the fuel flow rate exceeds a previously set value" rather generating the warning based on vehicle speed solves any stated problem or is for any particular purpose. Moreover, it appears that system disclosed by Murakami et al. or the applicants' invention would perform equally well regardless of whether the warning is based on the engine speed when the fuel flow rate exceeds a previously set value or based on the vehicle speed.

It would have been prima facie obvious to a person having ordinary skill in the art at the time the invention was made to have modified Murakami et al. such that the warning is based on engine speed because such a modification would have been considered a mere design change which fails to patentably distinguish over Murakami et al.

Regarding claim 2, Murakami et al. teach a motor vehicle having fuel-saving management system, comprising:

an information detection device (Fig. 1, element 2 and/or 3) detecting information ("stroke amount" and/or "rotation angle" and/or "vehicle speed") on a running state of the vehicle (column 14, lines 24-28, column 18, lines 28-33);

an information-processing device (Fig. 1, element 10) processing the information detected by the information detection device, the information-processing device also

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generating a warning ("warning signal") when the processed information satisfies required warning conditions ("not within a predetermined range of values"; column 6, lines 1-5, column 10, lines 24-31); and

an information storage device (Fig. 2, elements 22, 27, 28, 32, and/or 33) storing the processed information (column 16, line 62-67, column 17, lines 1-33, column 18, lines 37-39);

wherein when a time ("predetermined time interval") during which the processed information is maintained {present speed is held in memory for the duration of the interrupt interval. Thereafter, the present vehicle speed is updated according to interrupt signal 23a} to satisfy the required warning condition {alternative(s), not required by claim language}, the information-processing device stores the occurrence of the [warning] into the information storage device {Since the warning signal 'is read from register 33 into the warning device 77,' it is implicit that the warning signal was first stored within the register. See column 17, lines 24-25};

wherein the information includes processed highway information and said processed highway/expressway information includes a vehicle speed ("vehicle speed value" column 18, lines 33-39) {alternative(s), not required by claim language}; and

wherein the information processing device detects an accelerator angle (Fig. 1, element θ_{op} and/or " $S\theta$ ", column 18, lines 26-39) as information on the running state of the vehicle, and generates the warning on the vehicle speed when the accelerator angle exceeds a previously set value {the warning is generated when the vehicle speed

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exceeds a predetermined value. The predetermined value is indicative of "the corrected angle of the accelerator pedal 1"} (column 29, lines 1-16).

Murakami et al. do not *explicitly* teach that the processed information includes processed general road information and processed highway/expressway information.

It is noted that the applicants' claimed "general road information" is non-functional descriptive material. At best, the recited "general road information" is merely a compilation of data or an arrangement of data. See 2173.05(h). It would have been prima facie obvious to a person having ordinary skill in the art at the time the invention was made to combine any non-functional descriptive material, including the applicants' "processed general road information" with the prior art apparatus taught by Murakami et al. because such a combination would not produce unexpected results, and because the prior art apparatus would perform equally well with or without the applicants' claimed "processed general road information" because such inclusion of such "processed general road information" does not distinguish over the prior art in terms of structure and/or function.

The applicants are reminded that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. The specific characterization of "processed information" as "processed general road information" or "processed highway/expressway information" or " does not further define the apparatus in terms of its structure. See MPEP 2114.

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Regarding claim 28, Murakami teaches the limitations of claim 2 above, wherein the calculated vehicle speed (applicants' processed information) is maintained in memory to satisfy the required warning conditions for the duration of the interrupt interval (column 16, lines 44-53).

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dale Moyer whose telephone number is (571)270-7821. The examiner can normally be reached on Monday through Thursday from 10AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi H. Tran can be reached on (571)272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dale Moyer/
Examiner, Art Unit 3664
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664